CLAIMS

1.   A system design method for designing a system
which includes a plurality of system components, the
method comprising:

defining respective functional representations of
the plurality of system components, each functional
representation including at least one parameter value;
and

automatically defining an allowable set of such
parameter values in dependence upon the plurality of
system components, the allowable set of parameter
values defining compatible parameter values for the
components.

2.   A method as claimed in claim 1, wherein one of the
system components is a bus.

3.   A method as claimed in claim 2, wherein the
functional representation of the bus includes a
parameter value relating to bus width.

4.   A method as claimed in claim 1, further comprising
choosing an allowable set of parameter values and
setting the parameter values of the functional
representations concerned to the values defined by the
chosen allowable set of parameter values.

5.   A method as claimed in claim 1, further comprising
the steps of:
selecting a plurality of system components;
selecting a connection for interconnecting such
selected system components; and
selecting one of the allowable sets of parameter
values, in dependence upon said connection.

6.   A system component model for use in a method for designing a system comprising a plurality of system components, the model including a functional representation of the component concerned, which representation includes at least one parameter value for the component.

7.   A model as claimed in claim 6, wherein the parameter relates to data transfer characteristics of the component.

8.   A model as claimed in claim 6, wherein the parameter relates to a bus width.

9.   Apparatus for designing a system which includes a plurality of system components, the apparatus comprising:

a data storage medium which is operable to store respective functional representations of a plurality of system components, each functional representation including at least one parameter value; and

a processor which is operable to define automatically an allowable set of parameter values for a selected group of system components.

10.   Apparatus as claimed in claim 9, wherein one of the system components is a bus.

11.   Apparatus as claimed in claim 10, wherein the function representation of the bus includes a parameter value relating to bus width.

12.   Apparatus as claimed in claim 9, wherein the processor is operable to choose an allowable set of parameter values and setting the parameter values of

the functional representations concerned to the values defined by the chosen allowable set of parameter values.

5   13. Apparatus as claimed in claim 9, wherein the processor is operable to:

      select a plurality of system components;

      select a connection for interconnecting such selected system components; and

10   select one of the allowable sets of parameter values, in dependence upon said connection.

14. A programmable logic device designed in accordance with a method as claimed in claim 1.

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15. A programmable logic device designed using apparatus as claimed in claim 9.